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wenglor
the innovative family

Parameter and Processdata
OPT2022

IO-Link

Original Operating Instruction
Subject to change without notice
Available as PDF version only
Status: 16.08.2017
www.wenglor.com

EN

IO-Link OPT2022

Device ID

Product	hex	dec
OPT2022	0x070700	460544

IO-Link Version: V 1.1
Data Storage: yes
Blockparameter: yes
Min Cycle Time: 2,3 ms
SIO-Mode: yes
COM-Mode: COM2

Input length: 16 Bit

Subindex	Name	Bit Offset	Length	Range
1	Output 1	0	1 Bit	0 = false 1 = true
2	Output 2	1	1 Bit	0 = false 1 = true
3	Output 3	2	1 Bit	0 = false 1 = true
4	Output 4	3	1 Bit	0 = false 1 = true
5	Output 5	4	1 Bit	0 = false 1 = true
6	Output 6	5	1 Bit	0 = false 1 = true
7	Output 7	6	1 Bit	0 = false 1 = true
8	Output 8	7	1 Bit	0 = false 1 = true
9	Output 9	8	1 Bit	0 = false 1 = true
10	Output 10	9	1 Bit	0 = false 1 = true
11	Output 11	10	1 Bit	0 = false 1 = true
12	Output 12	11	1 Bit	0 = false 1 = true
13	Contamination State	12	2 Bit	– no contamination – dirty_UnderExposure – dirty_OverExposure
14	Reserved	14	2Bit	

Octet 0 (MSB)

Subindex	14		13		12	11	10	9
Bit Offset	15	14	13	12	11	10	9	8

Octet 1 (LSB)

Subindex	8	7	6	5	4	3	2	1
Bit Offset	7	6	5	4	3	2	1	0

Identification

Name	Index (hex)	Index (dec)	Subindex	R/W	Length	Data Storage	dynamic	modify others	Default value	Range
Vendor Name	0x0010	16	0	R	String				wenglor sensoric GmbH	
Vendor Text	0x0011	17	0	R	String				the innovative family	
Product Name	0x0012	18	0	R	String				OPT2022	
Product ID	0x0013	19	0	R	String				OPT2022	
Product Text	0x0014	20	0	R	String					
Serial Number	0x0015	21	0	R	String				-	
Hardware Revision	0x0016	22	0	R	String				-	
Firmware Revision	0x0017	23	0	R	String				-	
Application Specific Name	0x0018	24	0	R/W	String 32 Byte	X			***	

Parameter

Name	Index (hex)	Index (dec)	Subindex	R/W	Length	Data Storage	dynamic	modify others	Default value	Range
Device Settings										
System Command	0x0002	2	0	W	Uint8			X		Factory Reset = 0x82 (130)
Device Access Locks	0x000C	12	0	R/W	Uint16	X				
Display Rotate	0x00A0	160	0	R/W	Uint8	X			0	0 = Normal 1 = Rotate
Display Intensity	0x00A1	161	0	R/W	Uint8	X			0	0 = Normal 1 = Power Saver 2 = Screensaver
Display Mode	0x00A2	162	0	R/W	Uint8	X			0	0 = Digital 1 = Bar Graph
Language	0x00F0	240	0	R/W	Uint8	X			0	0 = English 1 = Deutsch 2 = Francais 3 = Espanol 4 = Italiano
Mesasured Value Settings										
Sender light intensity	0x00E0	224	0	R/W	Uint8	X			6	0 = Off 1 = Minimum 2 = Dark 3 = Middle 4 = Bright 5 = Maximum 6 = Automatic
Teach-in										
Window Teach-in	0x0200	512	0	W	Uint4			X	0	0 = No action 1…12 → Teach output 1…12
Subsequent Teach-in OK	0x0202	514	0	W	Uint4			X	**0**	
Subsequent Teach-in NOK	0x0203	515	0	W	Uint4			X	0	
Pin Function										
Pin function.A1	0x0040	64	1	R/W	Uint8	X		X	**1**	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A2	0x0040	64	2	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A3	0x0040	64	3	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A4	0x0040	64	4	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination

Pin function.A5	0x0040	64	5	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A6	0x0040	64	6	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A7	0x0040	64	7	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A8	0x0040	64	8	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A9	0x0040	64	9	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A10	0x0040	64	10	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A11	0x0040	64	11	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin function.A12	0x0040	64	12	R/W	Uint8	X		X	1	0 = Deactivated 1 = Switch 2 = Error 3 = Contamination
Pin Configuration										
A1 Configuration (Condition: Pin function=1)										
A1 NO / NC	0x0211	529	0	R/W	Uint8	X			0	0 = NO 1 = NC
A1 NPN / PNP	0x0221	545	0	R/W	Uint8	X			2	0 = PNP 1 = NPN 2 = Pushpull
Tolerance										
A1 Window size Hue	0x0501	1281	0	R/W	Uint16				60	1...4000
A1 Window size Saturation	0x0511	1297	0	R/W	Uint16				**130**	**1...4000**
A1 Window size Lightness	0x0521	1313	0	R/W	Uint16				**4000**	**1...4000**
A1 Configuration (Condition: Pin function=2 OR 3)										
A1 NO / NC	0x0211	529	0	R/W	Uint8	X			0	0 = NO 1 = NC
A1 NPN / PNP	0x0221	545	0	R/W	Uint8	X			2	0 = PNP 1 = NPN 2 = Pushpull
A2 Configuration										
A2 Configuration	Same Structure as A1 Configuration Same indexes as A1 +1									
A3 Configuration										
A3 Configuration	Same Structure as A1 Configuration Same indexes as A1 +2									
A4 Configuration										
A4 Configuration	Same Structure as A1 Configuration Same indexes as A1 +3									
A5 Configuration										
A5 Configuration	Same Structure as A1 Configuration Same indexes as A1 +4									
A6 Configuration										
A6 Configuration	Same Structure as A1 Configuration Same indexes as A1 +5									
A7 Configuration										
A7 Configuration	Same Structure as A1 Configuration Same indexes as A1 +6									
A8 Configuration										
A8 Configuration	Same Structure as A1 Configuration Same indexes as A1 +7									
A9 Configuration										
A9 Configuration	Same Structure as A1 Configuration Same indexes as A1 +8									

A10 Configuration	
A10 Configuration	Same Structure as A1 Configuration Same indexes as A1 +9
A11 Configuration	
A11 Configuration	Same Structure as A1 Configuration Same indexes as A1 +10
A12 Configuration	
A12 Configuration	Same Structure as A1 Configuration Same indexes as A1 +11

Observation

Name	Index (hex)	Index (dec)	Subindex	R/W	Length	Data Storage	dynamic	modify others	Default value	Range
Color sensor information										
Sensor status	0x1200	4608	0	R	Uint16		X		-	0 = Status OK 1 = No signal 2 = Signal too low 3 = Signal too high 4 = LED temperature too high 5 = LED temperature too low
sRGB color values	0x1203	4611	0	R	Record (3 x Uint8)		X		-	
HSL values	0x1201	4609	0	R	Record (8 x Uint16)		X		-	
Raw Color Sensor Channel Values	0x1202	4610	0	R	Record (6 x Uint16)		X		-	